Tanks Down East

by W. David McCaskill

*David McCaskill is an environmental engineer with the Maine Department of Environmental Protection. **Tanks Down East** is a regular feature of **LUSTLine**. David can be reached at: David.Mccaskill@state.me.us. As always, we welcome our readers' comments.*

The Tank That Never Leaked

Isn't It High Time We Made Sure USTs Don't End Up Where They Don't Belong?

Most people from "away" think of the entire coast of Maine as "Downeast"—down wind of Boston—but talk to a native Mainer and he or she'll more than likely point you in the direction east of Ellsworth, past all the crowds and souvenir shops that border the Acadia National Park region. The town of Lamoine is just the other side of Ellsworth, lying on a finger of land the glaciers laid down around 14,000 years ago.

Along with setting up some views of the "finest kind" of Mount Desert Island, the glaciers blessed Lamoine with the greatest natural gift of all—water. During the Ice Age, glacial meltwater flowed in streams under and through the ice, depositing sand and gravel on its way to the Atlantic Ocean. When the glaciers fully receded, those ice streams settled down as long, sinuous ridges of porous sand and gravel formations called "eskers" that are capable of storing large amounts of groundwater.

Along with their water supply value, eskers are excellent sources of sand and gravel for construction purposes (e.g., concrete, roadways). And Lamoine, like so many other sand and gravel towns across the nation, is pocked with gravel pits that, when all mined out, end up as big sandy bowls.

In the case of one particular gravel pit, conveniently close to an intersection of well-traveled roads, one entrepreneur built herself a small general store. After several years she sold the store to a new owner, who, based on some suggestions by his customers, decided to apply for a town permit to install gasoline USTs.

The Maine Department of Environmental Protection (DEP), which has the authority to register but not permit USTs, accepted the owner's UST registration form. No big deal, huh? Gas stations are built all the time, right?

I believe we need to begin talking seriously about siting and permitting USTs rather than sitting back and waiting for installation problems, operational errors, and plain poor housekeeping to keep sending some of these nightmare cleanups our way.

Enter the Concerned Citizen

When word got out in Lamoine about this proposed gas station, a local organic farmer—who had moved to Maine and to this particular coastal community partly because of the clean water and the lack of gas stations—saw a potential problem. As with many grassroots efforts, this citizen educated herself about the esker/aquifer and the town's zoning ordinance, which allows for commercial development in this area, but only if there is no undue threat to the aquifer.

That one citizen was soon joined by many citizens, who then formed a group. They asked the town planning board to invite someone from the Maine DEP (guess who?) to visit Lamoine and help educate the community on potential groundwater threats from USTs.

And education is the operative word here. Because once the planning board became educated about aquifers and the potential threats that USTs present to the health and well-being of aquifers, they voted down the application. (See *LUSTLine* #32, "Convenience Is Nice, But UST Systems Aren't Potato Chips.")

Several weeks later at the appeals board meeting, the board members and over 90 townspeople were graced until the midnight hour with the combined wisdom of a bevy of geologists (including a university professor and yours truly) and lawyers representing both sides. They heard discussion on the pros and cons of siting a gasoline UST system over the aquifer. They also heard about an aquifer study the town had commissioned some years ago that addressed the importance of this potential water supply for future development of the community. The appeals board upheld the planning board's decision.

No Tanky, No Leaky

The current status of this story is that these tanks will not leak, because they will not go into the ground. The store has been sold to the owner of a large local supermarket/gas station. When asked what he planned to do at the site, he said he'd been following what the citizens group had been doing and definitely had no intention of installing any tanks.

He wants to draw people into the store by offering up homemade breakfast and lunch goodies—and lobster. Anyway, why would he want to put in a gas tank over an aquifer when there are many gas stations five or ten miles away in areas served by public water or not over an aquifer?

The 20/20 Hindsight Syndrome

Meanwhile, way down in southern Maine, where sand and gravel aquifers are more abundant, there was another situation in the town of Hiram—same story, different approach. The tale of woe began when a large oil company decided to move its regional fuel oil plant to a location with better highway access.

Because roadways tend to follow eskers and aquifers—well-drained soils and abundant road-building materials—the new location fell smack on an aquifer. And let's face it, there are plenty of towns and cities in this great country that are located on aquifers. When the population was smaller and water supplies seemed unlimited, groundwater protection wasn't such a big deal.

In Lamoine, the aquifer in question has been relatively free of environmentally threatening development, so why not keep it that way? But in Hiram, it's been harder to stay off the aquifer.

In Hiram, the town planning board did not solicit any technical assistance from the state. Although they had some loose groundwater protection language, they interpreted the risk to groundwater from the regional fuel oil plant to be minimal. The citizen's group was not able to organize until after the planning board had decided to give the go ahead for the permit.

So, the two 30,000-gallon USTs have gone into the ground, and the oil company is now trying to address the citizen group's concerns about release prevention from the tanks and piping and spill containment at the loading rack, where fuel is loaded and unloaded.

Who's in Charge of Keeping Environmentally Sensitive Areas Out of Harm's Way?

In both of the cases I've cited, the citizen groups howled at the DEP for its lack of rules to prevent the siting of USTs in sensitive groundwater areas.

At the start of our UST program in 1986, because we were not allowed to require outright prohibition of tanks in sensitive areas, we did set monitoring requirements for sensitive geological areas 300 feet from a private water supply, 1,000 feet from a public water supply, or sites over a mapped sand and gravel aquifer or recharge area. Now the state requires secondary containment and monitoring for all UST facilities but still has no siting prohibitions.

The sad fact is that at state and federal levels nationwide, the tools needed to truly protect groundwater are limited. On the other hand, local governments have the ability to exercise such controls if they see fit, but they often fail to do so for various reasons (e.g., lack of technical knowledge, lack of political will, need for an ever-increasing tax base).

I think many communities would welcome a state mandate that they could invoke (or blame) to prevent an unwanted situation. Meaningful source water protection siting requirements for storage of hazardous substances such as USTs could well be a welcome tool for community planning.

With urban sprawl, you can be sure that potential groundwater threats will also sprawl. In the last five years in Maine, of 125 new (not replacement) UST facilities installed, 56 have been sited in sensitive geological areas.

I believe we need to begin talking seriously about siting and permitting USTs rather than sitting back and waiting for installation problems, operational errors, and plain poor housekeeping to keep sending some of these nightmare cleanups our way.

During the last UST/LUST conference, I heard state UST regulators vent a lot of frustration about how UST owners and operators don't seem to care about operating and maintaining their facilities properly. Maybe next year we should start talking about adding siting to our quiver of arrows.

Such action, however, will require legislative buy-in and a massive educational effort. Or, it may require some great environmental disaster.

In Maine, as in other states, many legislators are concerned about MTBE and groundwater quality, but constituent concerns about potential "takings" tend to cloud the issue. Maybe it's time for regulatory agencies and legislators to listen to citizens who are concerned about groundwater protection. To my way of thinking, it is high time we made sure USTs don't end up where they don't belong. ■

See related article "Aquifer Protection Land Use Regulations Proposed in Connecticut" on page 23.

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Lamoine Planning Board meeting. Citizens discuss the future of their groundwater with respect to siting a new gas station in the town.